IN THE CLAIMS

Claims 1-2 (cancelled).

Claim 3 (currently amended). A device for moving fluids through a microfluidic channel, comprising:

a microfluidic channel having an inlet and an outlet;

a fluid contained within said channel;



and an absorbent material <u>having a triangular shape</u> coupled to said outlet of said channel,

whereby when said fluid within said channel initially contacts said absorbent material, a driving force is created which moves said fluid through said channel to said outlet, wherein said fluid creates [a] an expanding moving fluid front across said triangular absorbent material as said fluid contacts said material [and said absorbent material is shaped such that the flow speed of said moving fluid front across said material is controlled by the shape of the material], thus increasing the driving force within said channel as fluid moves through said channel.

Claims 4/-5 (cancelled).

Claim 6 (currently amended). A device for providing a continuous flow within a microfluidic channel when using gravitational force as a driving source, comprising:



a fluid reservoir having a top surface and a bottom surface, and vent means for relieving pressure within said reservoir;

a first microfluidic channel connected to said reservoir;

a driving source, comprising gravitational force;

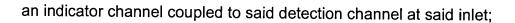
and a first passageway for coupling said first channel to said reservoir at a position between said top surface and said bottom surface, said first passageway having a first dimension along said reservoir and a second dimension perpendicular to said reservoir,

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wherein said first [passageway] <u>dimension</u> is sized such that fluid <u>driven</u> <u>by said gravitational force</u> entering said reservoir from said first channel <u>overcomes any surface tension of said fluid and flows into said reservoir</u> in a smooth, continuous stream.

Claim 7 (currently amended). A device for providing a visual indication of the concentration of an analyte in a microfluidic channel, comprising:

a microfluidic detection channel having an inlet and an outlet;



a sample channel coupled to said detection channel at said inlet opposite said indicator channel;

a first fluid introduced through said indicator channel into said detection channel;

a second fluid introduced through said sample channel into said detection channel toward said outlet:

a window for viewing the fluids flowing within said detection channel;

and [indicating means,] <u>a template</u> containing indicia <u>representative</u> of second fluid concentration within said detection channel, located in proximity to said detection channel,

wherein when said first and second fluids flow within said detection channel toward said outlet, a diffusion pattern is formed indicative of the concentration of said second fluid within said detection channel, such that the diffusion pattern may be compared to said [indicating means] <u>indicia on said template</u> to determine concentration within said detection channel.



Claim 9. (currently amended) A microfluidic device for joining two [or more fluid] <u>liquid</u> streams <u>when using gravitational force as a driving source,</u> comprising:

a first reservoir for containing a first liquid, having a first outlet orifice;

a first channel having [an] <u>a first</u> inlet opening <u>coupled to said first orifice</u> and [an] <u>a first</u> outlet opening;

a second reservoir for containing a second liquid, having a second outlet orifice;

a second channel having [an] <u>a second</u> inlet opening <u>coupled to said</u> <u>second orifice</u> and [an] <u>a second</u> outlet opening;

a driving source, comprising gravitational force;

and a main microfluidic channel having an inlet coupling region for coupling said outlet openings of said first and second channels to said main channel, said inlet coupling region having a greater width than said main channel,

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[wherein said coupling region is sized] such that <u>liquid</u> [fluid] <u>driven by said</u> <u>gravitational force</u> entering said <u>coupling</u> region from [either] <u>one</u> of said first or second <u>reservoirs through said</u> channel outlet openings [enters] <u>flows into</u> said main microfluidic channel without <u>trapping an air bubble within said other channel and blocking said outlet opening of said other channel.</u>

Claim 10 (cancelled).

Claim 11 (cancelled).

Claim 12 (cancelled).

Claim 13 (amended). The device of claim [12] 9, wherein said inlet openings of said first and second channels comprise surface tension valves.

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Claim 14 (original). The device of claim 13, wherein the static resistance of said surface tension valves is lower than the dynamic resistance within said first and second channels.

Claim/15 (cancelled)

Claim 16 (cancelled).